
Voluntary Approaches to Climate Protection



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ENERGY STAR: Beginnings



- **Problem** - climate an emerging issue; little regulatory authority
- **Opportunity** - huge carbon reductions available at a profit to businesses/organizations
- **Vision** - business will act if shown a way to protect environment and save money at same time
- **Strategy** - form partnership based on mutual benefits/commitments; connect with the top-level and support the bottom; publicize success.

From Goals to Actions



- Set Broad Goals (CCAP reductions targets)
- Identify barriers
 - market failure to deliver optimal energy efficiency;
 - transaction costs;
 - information gaps
- Follow-through with clearly defined tasks
 - address barriers
 - measurable; milestones driven
 - routinely updated as market changes

Identify the Barriers



- Businesses/consumers are rational
 - if it's too hard or risky to buy energy efficiency, they won't do it
- Information Barriers
 - information not equal between customers and suppliers
 - hard to measure energy efficiency/performance
- Motivational Barriers
 - budget - “use it or lose it”
 - management - “should be doing it any way”
 - landlord/tenant - savings benefit someone else

Look at Buildings

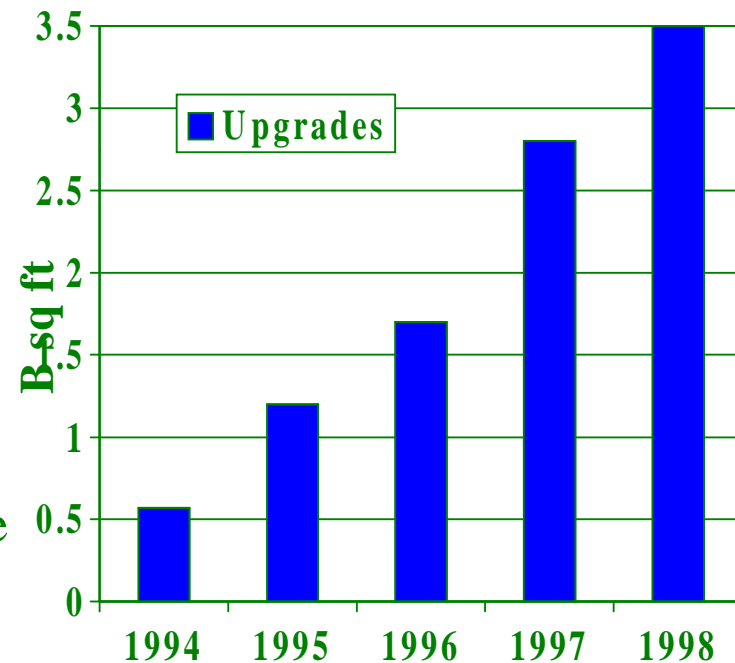
- 15% of US carbon emissions --- Office, Schools, Retail, Hospitals, etc
- \$90 billion/year of energy
- System-wide approach cost-effectively reduces energy needs by 30%

BUT

- *energy costs viewed as fixed, overhead costs -- many do not monitor bills*
- *facility managers/owners do not invest in buildings*
- *few service providers offer systems approach -- just replace old equipment*
- *no motivation /information to change from status quo*
- *split incentives -- tenant/landlord*
- *building energy performance is not currently measurable*
 - *Is 10 MPG high or low for an automobile? Is 50,000 Btu/sf-yr high or low for an office building? Most facility managers would respond with a blank stare.*

ENERGY STAR Buildings & Green Lights

- ENERGY STAR Solution
 - investment where profitable
 - motivation
 - unbiased information
 - technical assistance, no subsidies
 - performance goal for efficiency
- Great track record
 - Over 4000 participants
 - Over 1500 small businesses
 - 13% of US building square footage
 - Over \$6.5 billion being saved
 - 5.5 MMTCE prevented in 2000



On Target

ENERGY STAR /Green Lights: Evolution of Strategy

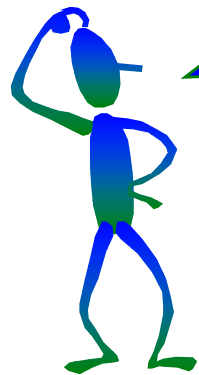
- 1991 -- Provide motivation, reliable information,
technical assistance
Link CEO/facility manager
Prove energy costs can be controlled/ efficiency works with lighting
- 1995 -- Focus on whole building = twice the savings
System interactions key
Upgrade strategy to maximize savings
- 1997 -- Commercial Real Estate Market (split incentives)
- 1999 -- Measure the efficiency of buildings; define the efficient building and
link to the Energy Star Brand name



ENERGY STAR: National Performance Rating

- Deploy today's technology
- Develop missing market infrastructure
- Condition the market for efficiency for long term

Problem:



I want my home/
building to save
with energy
efficiency,
BUT

What does that mean?

How do you ask for it?

Who do you ask?

*How do you know you
got it?*

Solution:

- Define “efficiency” for the market
- Make “efficiency” easy at key transaction points

ENERGY STAR: Performance Rating System and Label

Answer: How efficient is my building?

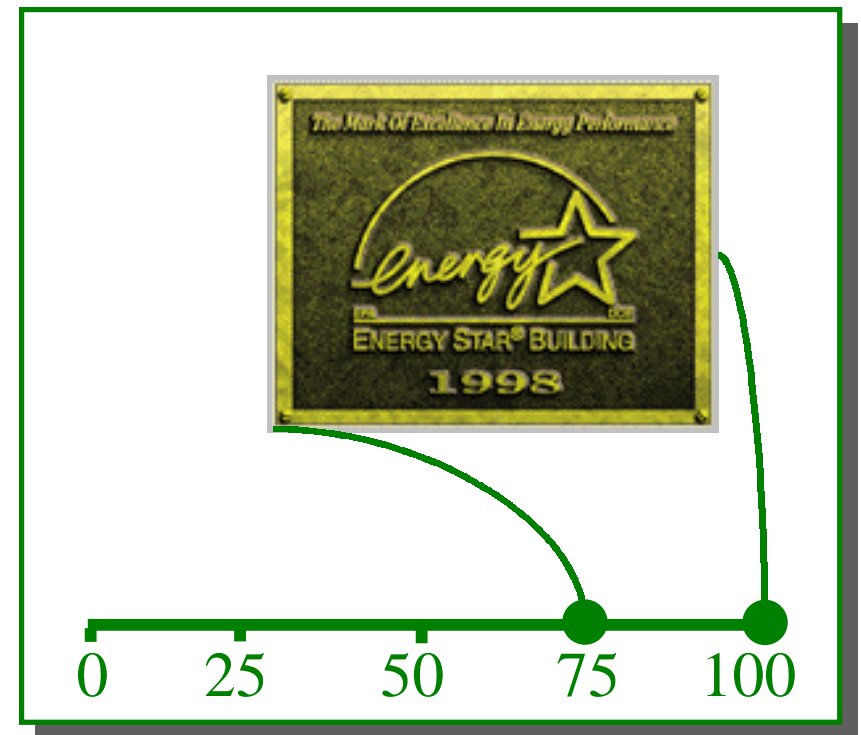
How does it compare?

Is it among the best?

Did I get what I paid for?

Market Based Lower energy bills
Higher space quality
Higher asset value

Market Tool Used by anyone
Internet based
3rd party verified



Over 5,000 buildings rated, 400 buildings labeled through 2000

Focus on Success



- Schools Sector
 - Strong Partner Base
 - 70% of top 50 school districts
 - ~ 1 billion square feet committed for upgrades
 - Tremendous Savings Opportunity
 - \$1.5 billion annually
 - ~ \$25 billion in capital benefits
 - Actions Underway
 - 2000 buildings rated and >200 earning Energy Star in 6 mos.
 - Nearly 0.5 MMTCE prevented
 - \$1.25 billion already earned in net savings

Illustrating a Price-Driven Response Compared to an Investment-Led Strategy

